## We claim:

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1. A height adjustable lamp comprising:

an inner tube;

an outer tube;

a means for fastening said inner tube to said outer tube;

a lamp head connected to a top end of said inner tube; and

a base mounted to a rear end of said outer tube;

wherein said inner tube is slidably received in said outer tube.

- 2. The height adjustable lamp of claim 1 further comprising a cable received within said inner tube and electronically connected to said lamp head for providing electric power to said lamp head.
- 3. The height adjustable lamp as claimed in claim 2, wherein said cable is a spiral cable.
- 4. The height adjustable lamp as claimed in claim 2, wherein said means for fastening said inner tube to said outer tube comprises:

a fastener having plural inward claws at a first end thereof; a threaded portion thereon and a second end mounted to a top end of said outer tube; and

a sleeve embracing said fastener and said top end of said outer tube, said sleeve having a threaded portion therein and an inclined surface situated above said threaded portion of said sleeve;

wherein said inner tube is slidably received through said fastener and in said outer tube, said threaded portion of said sleeve being engaged with said threaded portion of said fastener, in order said inclined surface of said sleeve can press against said inward claws to hold said inner tube in position.

5. A height adjustable lamp comprising:

an inner tube;

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a positioning device connected to a rear end of said inner tube;

an outer tube having an elongated rail therein, said elongated rail engaging with said positioning device for preventing said inner tube from rotating in said outer tube;

a fastener having plural inward claws at a first end thereof; a threaded portion thereon and a second end mounted to a top end of said outer tube;

a sleeve embracing said fastener and said top end of said outer tube, said sleeve having a threaded portion therein and an inclined surface situated above said threaded portion of said sleeve;

- a lamp head connected to a top end of said inner tube;
- a base mounted to a rear end of said outer tube; and

a cable received within said inner tube and electronically connected to said lamp head for providing electric power to said lamp head;

wherein said inner tube is slidably received through said fastener and in said outer tube, said threaded portion of said sleeve being engaged with said threaded portion of said fastener, in order said inclined surface of said sleeve can press against said inward claws to hold said inner tube in position.

- 6. The height adjustable lamp as claimed in claim 5, wherein said positioning device comprises a slot thereon for being engaged with said elongated rail of said outer tube.
- 7. The height adjustable lamp as claimed in claim 5, wherein said second end of said fastener is threadly engaged within said top end of said outer tube.
- 8. The height adjustable lamp as claimed in claim 5, wherein said cable is a spiral cable.

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- 9. The height adjustable lamp as claimed in claim 8, wherein said fastener cooperates with said positioning device to prevent said inner tube from sliding fully off said outer tube.
- 10. The height adjustable lamp as claimed in claim 9, wherein said inward5 claws are flexible.
  - 11. A height adjustable lamp:

an inner tube;

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a positioning device connected to a rear end of said inner tube, said positioning device having a non-circular outer cross section;

an outer tube having a non-circular inner cross section engaged with said noncircular outer cross section of said positioning device for preventing said inner tube from rotating in said outer tube;

a fastener having plural inward claws at a first end thereof; a threaded portion thereon and a second end mounted to a top end of said outer tube;

a sleeve embracing said fastener and said top end of said outer tube, said sleeve having a threaded portion therein and an inclined surface situated above said threaded portion of said sleeve;

a lamp head connected to a top end of said inner tube; and a base mounted to a rear end of said outer tube;

wherein said inner tube is slidably received through said fastener and in said outer tube, said threaded portion of said sleeve being engaged with said threaded portion of said fastener, in order said inclined surface of said sleeve can press against said inward claws to hold said inner tube in position.

- 12. The height adjustable lamp as claimed in claim 11, further comprising a cable received within said inner tube, said cable being electronically connected to said lamp head for providing electric power to said lamp head.
- 13. The height adjustable lamp as claimed in claim 11, wherein said non-circular inner cross section of said outer tube and said non-circular outer cross section of said positioning device is of a polygon shape.
  - 14. The height adjustable lamp as claimed in claim 11, wherein said second end of said fastener is threadly engaged within said top end of said outer tube.
- 15. The height adjustable lamp as claimed in claim 12, wherein said cable is a spiral cable.
  - 16. The height adjustable lamp as claimed in claim 14, wherein said fastener cooperates with said positioning device to prevent said inner tube from sliding fully off said outer tube.
- 17. The height adjustable lamp as claimed in claim 16, wherein said inward claws are flexible.